

Claims

1  
2 1. Piston for a hydraulic dashpot, whereby the piston (1)  
3 is mounted on one end of a piston rod (3), travels back and  
4 forth inside a cylinder (2), which it divides into two  
5 chambers (4 & 5), and has a body (10) provided with axial  
6 channels (6 & 7), each of which can be opened and closed at  
7 the end by a one-way valve in the form of a cup spring or  
8 stack of cup springs (8 & 9), independently adjusting their  
9 tensions for both the compression and the suction phases,  
10 characterized in that the cup springs (8 & 9) rest against and  
11 in alignment with the body, and the tension is adjusted by  
12 deforming the body resiliently or plasticly against its  
13 contact surface.

14  
15 2. Piston as in Claim 1, characterized in that the body  
16 (10) is in several parts.

17  
18 3. Piston as in Claim 2, characterized in that the body  
19 (10) is composed of a central bolt (11) with a continuous  
20 collar (22) and of two piston halves (12 & 13) that rest  
21 axially against and accommodate the collar at each end.

22  
23 4. Piston as in Claim 2, characterized in that the body  
24 (10) is composed of a central bolt (11) with two axially  
25 separate continuous collars (34 & 35), the piston halves (12 &  
26 13) positioned between them,

27  
28 5. Piston as in Claim 2, characterized in that the body  
29 (10) is composed of a central bolt (11) with a continuous

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1 groove and comprises two piston halves (12 & 13), whereby the  
2 groove is engaged by two noses (36).

3  
4 6. Piston as in one of Claims 3 through 5, characterized  
5 in that its halves (12 & 13) are sintered metal.

6  
7 7. Piston as in one or more of Claims 1 through 6,  
8 characterized in that its means of applying tension are in the  
9 form of a screw-tight mechanism comprising nuts (17 & 18) that  
10 operate in conjunction with threads (15 & 16) extending around  
11 the bolt (11).

12  
13 8. Piston as in one or more of Claims 1 through 7,  
14 characterized in that the surrounding surface of either the  
15 collar (22) or the heads (28 & 29) of the bolt halves (26 &  
16 27) are not round but preferably polygonal and fit into  
17 matching recesses in the piston halves (12 & 13).

18  
19 9. Piston as in one or more of Claims 1 through 8,  
20 characterized by round and/or radial and preferably knife-like  
21 elevations on the faces of the depressions (31) in the piston  
22 halves (12 & 13).

23  
24 10. Piston as in one or more of Claims 1 through 9,  
25 characterized by mutually engaging elevations on and  
26 depressions in the inner adjacent faces of the piston halves  
27 (12 & 13).

28  
29 11. Method of manufacturing a piston as in one or more of

09981086-101601

Claims 3 and 6 through 10, characterized in that the bolt (11) is produced by welding two halves (26 & 27) together, leaving a bead (36) that constitutes the collar (22).

12. Method of manufacturing a piston as in one or more of Claims 3 and 6 through 10, characterized in that the bolt (11) is produced from two halves (26 & 27), each provided with a head (28 & 29), by welding or otherwise fastening the mutually contacting heads together to the collar (22).

13. Method of manufacturing a piston as in one or more of Claims 1 through 10, characterized in that the bolt halves (26 & 27) are welded or otherwise fasten together the piston halves (12 & 13) that accommodate them.

14. Method of fastening a piston as in one or more of Claims 1 through 10 to a piston rod, characterized in that the bolt (11) is welded to the piston rod (3) or to a washer (19) or shock-accommodating disk (25) mounted around the piston rod.

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List of part

1. piston
2. cylinder
3. piston rod
4. chamber
5. chamber
6. channel
7. channel
8. upper cup springs
- u. lower cup springs
10. body
11. bolt
12. half
13. half
14. binding
15. threads
16. threads
17. nut
18. nut
19. washer
20. sealing edge
21. sealing edge
22. collar
23. compression disk
24. compression disk
25. Shock-accommodating disk
26. upper bolt half
27. lower bolt half
28. head

09981086-101601

- 29. head
- 30. Hexagonal recess
- 31. depression
- 32. clamp connection
- 33. clamp connection
- 34. collar
- 35. collar
- 36. nose

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